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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,904	03/31/2004	Yang Hoon Kim	LT-0053	4998
34610	7590	06/19/2006		
FLESHNER & KIM, LLP			EXAMINER	
P.O. BOX 221200			CHU, DAVID H	
CHANTILLY, VA 20153				
			ART UNIT	PAPER NUMBER
			2628	

DATE MAILED: 06/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/812,904	KIM ET AL.
Examiner	Art Unit	
David H. Chu	2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 4th April, 2006.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) 5,11,16,26-27,33 and 34 is/are allowed.
- 6) Claim(s) 1-4,6-10,12-15,22-25 and 30-32 is/are rejected.
- 7) Claim(s) 17-21,28 and 29 is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 31 March 2004 is/are: a) accepted or b) objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application (PTO-152)
- 6) Other: _____

DETAILED ACTION

Response to Amendment

1. Acknowledgment is made of the amendment filed by the applicant on 4/4/2006, in which:
2. The 112 2nd paragraph rejection to claims 4-5, 8, 12-13, 24 and 32 were traversed;
3. Independent claims 1,6, 11, 16, 22, 30 and 34 were amended;
4. Dependent claims 2, 4-5, 8, 12, 21, 26 and 34 were amended;

Claims 1-34 are currently pending in U.S. Application Serial No. 10/812,904, and an Office Action on the merits follows.

Claim Rejections - 35 USC § 112

5. The rejection to the claims 4-5, 8, 12-13, 24 and 32, set forth in the previous office action, is **withdrawn** in light of the applicant's argument.

Claim Rejections - 35 USC § 102

6. The rejection to claim 16, set forth in the previous office action, is **withdrawn** in light of the applicant's argument.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. **Claims 1-4, 6-8, 10, 12-15 and 22-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anlauff, and further in view of Badger.**

9. Note with respect to claims 1-4, 6-8, 10 and 12-15,

10. Anlauff discloses a convertible mobile computing device as described in the 102 rejection above.

11. Further, Anlauff teaches control electronics that condition the display screen output for a “portrait” or “landscape” orientation as desired to accommodate the orientation of the mobile computing device in its **tablet operational mode (tablet PC mode)** (col. 8, line 44-48).

12. Therefore, Anlauff clearly teaches the use of the different display modes and system modes, **wherein the display mode varies within the system mode of tablet PC mode**, on a “portable computer” as recited by the applicant.

13. However, Anlauff does not expressly teach the changing of different display modes “in response to user’s request” or “in association with system mode”. Further, Anlauff does not expressly teach, “setting the display mode” to the stored changed

display mode or “default mode” accordingly when the “system power supply” of the portable computer is enabled.

14. Badger discloses a system and a method that utilize a driver 208 that perform modification to images for display to a rotatable display 100a (col. 3, line 66-67 & col. 4, line 1-2). Badger teaches that a desired orientation mode can be changed either by the user or automatically by use of a sensor that respond to the physical orientation of the device (col. 5, line 25-31). The physical orientations of the device are landscape and portrait positions, best shown in FIG. 1. The automatic changing of orientation mode by use of a sensor is the equivalent of the display mode “corresponding to the system mode” as recited by the applicant.

15. Further, Badger teaches the use of a driver 208 that performs the necessary modification to an image and sends the display information to the display memory 212, best shown in FIG. 2 (col. 3, line 60-67 & col. 4 line 1-2). The task of the driver carrying out the modification to an image and sending it to memory is the equivalent to storing a changed display mode to a storage device. At system startup, to set the display mode as stored or to a default is inherent.

16. Further, it is well known in the art that changing a setting (display mode) obviously requires a previous setting to change from.

17. Further, clearly the display mode of the device in notebook PC mode will be in landscape display mode due to the orientation of the keyboard (FIG. 5).

18. In tablet PC mode, the combined teaching of Anlauff and Badger enables the user to set the orientation of the device according to personal preference.

19. The input method/device would be the device itself, wherein the user manually rotates the device.

20. Further, it is well known in the art to save each display mode associated with the respective system modes, because this allows the user to customize the display mode in tablet PC mode, which is capable of multiple display orientations, and the user would not have to reset the setting each time the system mode is changed or re-executed.

21. Therefore, the display mode is set and saved dependent of the system mode as discussed above, wherein the rotation of the device by the user is the input method/device.

22. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to apply the orientation mode teachings for a rotatable display of Badger to the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff for added customization to the display mode.

23. Note with respect to claims 22-25, refer to 103 rejections discussed above with respect to claims 1-4, 6-8, 10 and 12-15.

24. Further, Anlauff clearly teaches the use of at least two display mode orientations, as the disclosed convertible mobile computing device support both "landscape" and "portrait" modes as described above. The device disclosed by Anlauff comprises of a keyboard 212 (FIG. 5) or a touch sensitive screen that is used to carry out any intended function (col. 8, line 42-44).

25. However, Anlauff does not expressly teach the use of a "storage device" and a "controller" for storing the changed display mode and setting the display mode respectively. Further, Anlauff does not expressly teach the use of an input device for changing the display mode orientation.

26. Badger teaches the use of a driver 208 and display memory 212, as described above. The driver is the equivalent to a "controller" as it sends to the display memory the changed orientation mode for display. The display memory is the equivalent to the "storage device" as it stores the changed orientation mode.

27. Further Badger teaches the user selecting the desired orientation mode as described above.

28. Therefore, it would have been obvious to one of an ordinary skill in the art to use the driver, display memory and input device of Badger to the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff to enable customization of the display mode.

29. **Claims 9, 20, 30-32 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anlauff in view of Badger, and further in view of Hinckley.**

30. Note with respect to claim 9, refer to the 103 rejections above with respect to claims 1-8 and 10-15.

31. However, Anlauff and Badger do not expressly teach the use of a LCD display.

32. Hinckley discloses a device that may be used with a LCD display (pg. 8, [0136]).

33. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to combine the device of Anlauff, orientation mode teachings of Badger and LCD display of Hinckley to further customize the display mode and for efficient use of power.

34. Note with respect to claim 20, refer to the 102 rejection discussed above with respect to claim 16. To store the display modes or any type of data “separately” is inherent as data are inherently stored in different addresses.

35. However, Anlauff and Badger do not expressly teach the use of a LCD display.

36. Hinckley discloses a device that may be used with a LCD display as described above.

37. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to combine the device of Anlauff, orientation mode teachings of Badger and LCD display of Hinckley to further customize the display mode and for efficient use of power.

38. Note with respect to claims 30-32 and 34, refer to the 103 rejections discussed above with respect to claims 22-25.

39. The teachings of Badger show the driver and display memory, being the equivalent to a "controller" and a "storage device" as discussed above, respectively correspond to "control means" and "storing means" of the applicant.

40. Further, to provide a second "storing means" for images and "control means" for retrieving and displaying images is inherent from 103 rejections with respect to claim 20 and claim 22-28 discussed above.

41. However, Anlauff and Badger do not expressly teach the use of a LCD display.

42. Hinckley discloses a device that may be used with a LCD display as described above.

43. Therefore, at the time of the invention, it would have been obvious to one of an ordinary skill in the art to combine the driver, display memory and input device of Badger, the device capable of landscape/portrait display modes and notebook PC/tablet PC system modes of Anlauff, and the LCD display of Hinckley to enable customization of the display mode and for efficient use of power.

Allowable Subject Matter

44. **Claims 16, 27 and 33 are allowed.**
45. The following is an examiner's statement of reasons for allowance:
46. Prior art references do not anticipate or suggest;
47. The prior art of record fails to teach or suggest retrieving a wallpaper image for the requested display mode between at least two corresponding wallpaper images previously stored each associated with different display modes.
48. **Claims 17-21, 28 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.**
49. **Claims 5, 11, 26 and 34 are allowed.**
50. The following is an examiner's statement of reasons for allowance:
51. Prior art references do not anticipate or suggest;
The prior art of record fails to teach or suggest **each system mode being supported by a separate operating system.**

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Response to Arguments

52. Applicant's arguments filed on 4/4/2006 have been fully considered but they are not persuasive.

53. Note with respect to claims 1-8, 10-15, 17-19 and 21-29,

54. The applicant argues:

55. Badger discloses a display orientation independent of a system mode;

56. Badger does not teach or suggest storing display mode information corresponding to a system mode for retrieval when the system mode is re-executed or the system is enabled.

57. Badger, Anlauff and Hinkley, individually or in combination, do not teach or suggest,

58. An input device configured to change a display mode orientation, as recited in claim 22.

59. Storing the information of the changed display mode when the display mode of a display is changed from default display mode information associated with each system mode, as recited in claim 11.

60. However, note with respect to the convertible mobile computing device of

Anlauff:

61. Clearly the display mode of the device in notebook PC mode will be in portrait display mode due to the orientation of the keyboard (FIG. 5).

62. In tablet PC mode, the combined teaching of Anlauff and Badger enables the user to set the orientation of the device according to personal preference.

63. The input method/device would be the device itself, wherein the user manually rotates the device.

64. Further, it is well known in the art to save each display mode associated with the respective system modes, because this allows the user to customize the display mode in tablet PC mode, which is capable of multiple display orientations, and the user would not have to reset the setting each time the system mode is changed or re-executed.

65. Therefore, the display mode is set and saved dependent of the system mode as discussed above, wherein the rotation of the device by the user is the input method/device.

Conclusion

66. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

67. Any inquiry concerning this communication or earlier communications from the examiner should be directed to David H. Chu whose telephone number is (571) 272-8079. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark k. Zimmerman can be reached on (571) 272-7653. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DHC



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